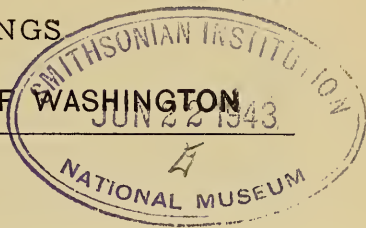


PROCEEDINGS
OF THE
BIOLOGICAL SOCIETY OF WASHINGTONTHREE NEW ACANTHACEAE FROM PANAMA.¹

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The present paper contains descriptions of three new species of Acanthaceae collected recently in the Department of Coclé, Panama, by Paul H. Allen. One of them is a peculiar shrubby *Ruellia* with purplish black flowers, another belongs to the genus *Aphelandra*, and a third to *Beloperone*.

Ruellia anthracina, Leonard, sp. nov.

Frutex, caulibus puberulis vel glabratiss; lamina foliorum ovata vel oblongo-ovata, subacuta, basi angustata, in petiolum decurrens, glabra, costa et venis brunneo-puberulis; petioli puberuli; spica terminalis grandis, rhachi puberula; bracteae grandes, imbricatae, oblongae, acutae, basi angustatae, tenues, virides, costa et venis puberulis; bracteolae longae, lineari-lanceolatae, acuminatae, basi angustatae; calyx puberulus, segmentis linearibus acuminatis; corolla anthracina, glanduloso-pubescent, hypocrateriformis, curvata, lobis brevibus rotundatis, emarginatis; stamina inclusa; capsulae clavatae, brunneo-puberulae; semina brunnea, plana, glabra.

Shrub up to 2.5 meters high; branches puberulous or glabrate; leaf blades ovate to oblong-ovate, up to 27 cm. long and 15 cm. wide, acutish, narrowed at base and decurrent on the petiole, glabrous except as to costa and veins (8 to 12 pairs), these brown-puberulous, the cystoliths minute and inconspicuous; petioles up to 6 cm. long, puberulous; flowers borne in terminal and subterminal spikes up to 27 cm. long, the rachis puberulous, the bracts imbricate, oblong, up to 6 cm. long and 3 cm. wide, acute, narrowed at base, sessile, thin, green, the costa and veins puberulous; bractlets linear-lanceolate, up to 27 mm. long and 5 mm. wide, acuminate, narrowed at base, the costa and veins puberulous; calyx puberulous, the tube 2 mm. long, the segments linear, 18 to 20 mm. long, 2 to 2.5 mm. wide, acuminate; corolla 7 cm. long, glossy purplish black, finely glandular-pubescent, curved, the lower half of the tube slender, about 2 mm. in diameter, gradually enlarged from middle to

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about 1.5 cm. at throat, the limb slightly irregular, the lobes short, rounded, emarginate; ovary, style, and filaments puberulous; stamens included; anthers 7 mm. long, the cells glabrous, the connective dorsally puberulous; capsules clavate, 20 to 27 mm. long, up to 7 mm. broad and 5.5 mm. thick (the lower half solid, the enlarged seed-bearing upper portion slenderly pointed), brown-puberulous, 8-seeded; seeds dark brown, suborbicular, flat, 5 mm. long, 4.5 mm. wide, glabrous.

Type in the U. S. National Herbarium, no. 1,823,493, collected on trail to La Mesa, in the hills north of El Valle de Antón, Province of Coclé, Panama, altitude about 1,000 meters, September 2, 1941, by Paul H. Allen (no. 2732). Allen's 2327, collected January 21, 1941, at the same locality is also this species.

The glossy, purplish black flowers and the glabrous seeds of *R. anthracina* are unique characters in the genus *Ruellia*. Its large thin bracts suggest possible relationship to a red-flowered, red-bracted species, *R. colorata* Baill., from Colombia.

***Aphelandra gracilis* Leonard, sp. nov.**

Frutex vel arbor parva, caulibus minute strigosis; lamina foliorum lanceolata vel oblongo-lanceolata, acuminata, basi angustata, in petiolum decurrens, glabra, costa et venis minute strigosis; spicae graciles, laxae; rhachis parce puberula; bractae ovatae, subacutae, medio glandulas sessiles submarginales parvas gerentes, extus pubescentes, intus glabrae, ciliolatae; bracteolae lanceolatae, acuminatae, minute pubescentes, striatae; calycis segmenta lanceolata, acuminata, striata; corolla hypocrateriformis, coccinea, puberula, bilabiata, labio superiore erecto, bilobo, lobis triangularibus, acuminatis, inferiore patulo, trilobo, lobo mediano longo, lanceolato, lateralibus minutis, rotundatis; capsulae clavatae, glabrae, minute punctatae.

Shrub or small tree up to 6 meters high; branches minutely strigose or the lower glabrate, the cystoliths conspicuous; leaf blades lanceolate to oblong-lanceolate, up to 16 cm. long and 6 cm. wide, acuminate (the tip blunt), narrowed at base and decurrent on the petiole, glabrous except as to costa and veins (8 to 10 pairs), these more or less minutely appressed-pubescent; flowers spreading, geminate, borne on 1 to several slender terminal or subterminal spikes up to 12 cm. long, the rachis sparingly puberulous, the internodes mostly 6 to 8 mm. long; bracts ovate, up to 8 mm. long, 4.5 mm. wide, acutish, pubescent without, glabrous within, ciliolate, bearing on either side of the costa several small, sessile, elliptical glands; bractlets lanceolate, 7 mm. long, 2 mm. wide, acuminate, sparingly and minutely pubescent without, sparingly ciliolate, subcarinate, striate, the margins hyaline; calyx about 8 mm. long, subglabrous, divided nearly to base, the segments lanceolate, 1.5 to 2 mm. wide, acuminate, striate; corolla scarlet, puberulous, more or less curved, 5 to 5.5 cm. long, about 2 mm. in diameter at base, about 6 mm. at throat, the lips 2 cm. long, the upper lip erect, 2-lobed, the lobes triangular, 9 mm. long, 4 mm. wide at base, acuminate, the lower lip spreading, the middle

lobe lanceolate, 18 mm. long, about 5 mm. wide, acute, the lateral lobes ovate, about 1 mm. long; capsules clavate, 22 mm. long, 6.5 mm. broad, 4.5 mm. thick, glabrous, minutely punctate, 4-seeded; mature seeds not seen.

Type in the U. S. National Herbarium, no. 1,821,401, collected north of El Valle de Antón, Department of Coclé, Panama, altitude 1,000 meters, January 13, 1942, by Paul H. Allen (no. 2908); no. 1,821,402 is an isotype. Allen's 2300 and 2301, collected January 21, 1941, at the same locality, are also this species.

Aphelandra gracilis is related to *A. pulcherrima* (Jacq.) H. B. K., of northern South America, but is easily distinguished by its nearly glabrous leaf blades and slender lax spikes. In *A. pulcherrima* the leaf blades are softly pubescent, at least beneath, and the bracts closely imbricate.

***Beloperone Allenii* Leonard, sp. nov.**

Frutex vel suffrutex, caulibus glabris vel ad nodos parce et minute pubescentibus; lamina foliorum oblonga, breviter acuminata, basi angustata, in petiolum decurrens, costa et venis perspicuis; inflorescentia terminalis vel axillaris, pedunculo communi spicas 2 vel 3 apice gerente, bifariam hirtello sicut pedunculis secundariis, floribus secundis, approximatis; bracteae et bracteolae floriferae triangulares, acutae, puberulae; calycis segmenta lanceolata, glanduloso-puberula; corolla incarnata, glanduloso-pubescent, bilabiata, labiis aequalibus, superiore trilobo, lobis minutis, obtusis, inferiore trilobo, lobis rotundatis; ovarium glabrum.

Shrub or woody herb up to 1.5 meters high; branches glabrous or sparingly and minutely pubescent at the nodes; leaf blades oblong, up to 15 cm. long and 6.5 cm. wide, short-acuminate (the tip blunt), narrowed at base and decurrent on the petiole, glabrous, the costa and veins (12 to 16 pairs) rather prominent, the cystoliths numerous but minute and inconspicuous; inflorescence terminal or axillary, the common peduncles about 4 cm. long, bearing at apex 2 or 3 spikes, each 2 to 3 cm. long, the secondary peduncles about 1 cm. long, these and the common peduncles hirsutulous in 2 lines, the flowers secund, approximate; bracts at the apex of the common peduncles linear, 6 to 7 mm. long, 0.5 mm. wide, obtuse; bracts subtending the flowers triangular, 5 mm. long, 1.5 mm. wide at base, acute, puberulous without, the costa rather prominent, the veins small and inconspicuous; bractlets similar to the bracts but slightly smaller; calyx glandular-puberulous, deeply segmented, the segments lanceolate, about 10 mm. long, 2 to 2.5 mm. wide at base, acuminate, ciliolate; corollas bright pink, finely glandular-pubescent, 3 to 4 cm. long, gradually enlarged from 2 mm. at base to about 6 mm. at throat, 2-lipped, the lips about equal, the upper one 2-lobed, the lobes small, 1 mm. long, obtuse, the lower lip 3-lobed, the lobes subequal, rounded, the middle lobe 3.5 mm. wide, the lateral ones about 3 mm. wide; stamens barely exerted, the anther lobes approximate, superposed, the upper one apiculate at base, the lower one terminating in a blunt curved spur 1 mm. long; ovary glabrous; style 4 cm. long, minutely pubescent, the stigma 2-lobed, the lobes minute, conical; fruit not seen.

Type in the U.S. National Herbarium, no. 1,823,485, collected in hills north of El Valle, Province of Coclé, Panama, altitude 800 to 1,000 meters, January 2, 1941, by Paul H. Allen (no. 2285); isotype, no. 1,823,729.

Apparently unrelated to any other Central American or Panamanian member of the genus. It is said by the collector to be a fairly common undershrub along trails.